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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/541,694  
Filing Date: August 05, 2005  
Appellant(s): LEVY ET AL.

\_\_\_\_\_  
Lenny R. Jiang, Reg. No. 52,432  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 5 June 2009 appealing from the Office action mailed 20 October 2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**NEW GROUNDS OF REJECTION**

Claims 1-5 and 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. See new grounds of rejection below.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

Decasper, D. and Plattner, B. "DAN: Distributed Code Caching for Active Networks", Proceedings of IEEE INFOCOM'98, April 1998, pp. 609-616.

The Applicant's admitted prior art as disclosed in United States Patent Application Specification #10/541,694, including the reference "Request for Comments (RFC) 2543: SIP: Session Initiation Protocol", Network Working Group, March 1999, 153 pages.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**NEW GROUNDS OF REJECTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 and 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-5 and 13-14 are rejected under 35 USC § 112, ¶ 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite the following means (or step) plus function limitation: Claim 1 recites “means controlled by the virtual circuit set-up means for sending active code to the active node”, claim 2 recites “means for selecting active code in the library”, and claim 4 recites “means for generating active code on the fly”.

These limitations invoke 35 USC § 112, ¶ 6 because they meet the 3-prong analysis set forth in MPEP 2181 as they recite the phrase “means for” or “step for” (or appellant identifies the limitations as means (or step) plus function limitations in the appeal brief) and the phrases are modified by functional language and they are not modified by sufficient structure, material, or acts for performing the recited function. Also see *Altiris Inc. v. Semantec Corp.*, 318 F.3d 1363, 1375 (Fed. Cir. 2003).

35 USC § 112, ¶ 6, requires such claim to be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. “If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section § 112.” *In re Donaldson Co.*, 16 F.3d 1189, 1195, 29 USPQ 1845, 1850 (Fed. Cir. 1994)(in banc.).

For a computer-implemented means-plus-function claim limitation that invokes 35 USC § 112, ¶ 6, the corresponding structure is required to be more than simply a

general purpose computer. Aristocrat Technologies, Inc. v. International Game Technology, 521 F.3d 1328, 1333, 86 USPQ2d 1235, 1239-40 (Fed. Cir. 2008). The corresponding structure for a computer-implemented function must include the algorithm as well as the general purpose computer. WMS Gaming, Inc. v. International Game Technology, 184 F.3d 1339, 51 USPQ2d 1385 (Fed. Cir. 1999). The written description must at least disclose the algorithm that transforms the general purpose microprocessor to a special purpose computer programmed to perform the claimed function. Aristocrat, 521 F.3d at 1338, 86 USPQ2d at 1242.

In the instant application, the following portions of the specification and drawings may appear to describe the corresponding structure for performing the claimed functions:

For the limitation “means controlled by the virtual circuit set-up means for sending active code to the active node” recited in claim 1, Figure 1 illustrates a “unit 3 handling the virtual circuit request 5” (see page 6, line 25 of the specification) that “may execute an algorithm to determine the appropriate active codes” and “a strategy for sending . . . those codes” (see page 6, lines 26-30).

For the limitation “means for selecting active code in the library” recited in claim 2, the specification discloses a “signaling control unit comprising the library, for example the unit 3, selects the appropriate active codes from among those available in the library, following the step of negotiation involving the signaling control units 3, 4 and the terminal 1, 2” (see page 8, lines 30-35) and that Unit 3 (Fig. 1) “may execute an algorithm to determine the appropriate active codes” (see page 6).”

For the limitation “means for generating active code on the fly” recited in claim 4, the specification discloses that “appropriate active codes are generated on the fly by a signaling control unit 3 on the basis of the result of the negotiation that is effected in real time and enables the source code most appropriate to the negotiation to be generated” (see page 9, lines 16-20).

However, the specification and drawings do not disclose sufficient corresponding structure, material or acts for performing the claimed function.

For the limitation “means controlled by the virtual circuit set-up means for sending active code to the active node”, it appears that appropriate active codes are determined and sent to device using “an algorithm.” However, the Specification fails to disclose details of the algorithm or how the determination of codes and sending of the selected codes is performed. Instead of disclosing details as to how such functions are accomplished, the Specification merely discloses a desired end result of execution of the algorithm, namely, that the algorithm ensures “that the data packets of the call are transmitted appropriately” (see page 6, lines 34-35) and that “the execution of corrective measures necessary for the effective level of service [corresponds] to the negotiated theoretical level of service” (see pages 35-36).

For the limitation “means for selecting active code in the library” recited in claim 2, while the specification appears to disclose an algorithm executing on a unit, the execution of which determines appropriate active codes from among those in a library, the Specification fails to disclose the steps of the algorithm, how such codes are selected, or how the determination of which codes to select is made. Instead, the

Specification merely discloses a desired end result of a process – namely, the successful selection of desired active codes from a library.

For the limitation “means for generating active code on the fly”, while the Specification appears to disclose a control unit that executes software in order to generate active codes on the fly based on results of a negotiation, the specification appears to fail to disclose any specific details or steps on how such active codes are generated. Rather, the specification merely discloses a desired end result of obtaining desired active codes without providing details on how such a result is accomplished.

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant is required to clarify the record by either:

(a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function



Art Unit: 2443

and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

Art Unit: 2443

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art ("AAPA") in view of "Distributed Code Caching for Active Networks" ("DAN").

Regarding claim 1, "AAPA" disclosed an active telecommunications network comprising:

an active node comprising active code reception means and an active code execution environment (see page 2, lines 11-15 and 23-26 of the specification; note that if the active node is able to execute active code, it must have an active code execution environment); and

a signaling control unit (see at least page 1, lines 5-13 of the specification) comprising:

means for receiving a request (5) to set up a virtual circuit between a client terminal and a server terminal; virtual circuit set-up means (see at least page 1, lines 5-24, wherein the signaling control unit may be a SIP proxy, which is known to set up virtual circuits for a communication session between a client and server; see also Applicant's admitted prior art "Session Initiation Protocol", the "standard" described in the specification being "RFC 2543", which has been cited in this Office Action).

Applicant's admitted prior art did not expressly disclose wherein the signaling control unit contains means controlled by the virtual circuit set-up means for sending

Art Unit: 2443

active code to the active node, however, the Applicant did admit that the prior art disclose wherein active nodes receive active code in response to setting up a virtual circuit between a client and a server (see at least page 2, lines 23-37 and page 3, lines 1-3)

"DAN" disclosed a unit that sends active code to an active node upon a request to set up a virtual circuit between a server and a client analogous to the situation described in the Applicant's admitted prior art (see at least page 611, left column).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the means for sending active code to an active node within the signaling control unit described in "AAPA" since the combination would provide a system that takes advantage of the active network paradigm as described in both the Applicant's admitted prior art and "DAN" for virtual circuit applications such as those also described in both "AAPA" and "DAN" and one of ordinary skill, based on their analogous disclosures, would have expected the combination to be successful.

Regarding claims 2-4, "AAPA" and "DAN" disclosed a network according to claim 1.

"AAPA" did not expressly disclose a network characterized in that the signaling control unit further comprises an active code library; means for selecting active code in the library, active code compilation means, and means for generating active code on the fly, however, "DAN" did disclose these limitations (see at least page 611, left column, specifically regarding the steps described in Figure 2)

Claims 2-4 are rejected since the motivations regarding the obviousness of claim 1 also applies to claims 2-4.

Regarding claim 5, “AAPA” and “DAN” disclosed a network according to claim 1.

“AAPA” disclosed wherein the network is adapted to use the Internet Protocol (IP). (see at least page 1, lines 14-17)

“DAN” similarly discloses such a limitation (see at least page 610, left column, specifically “...common network layer protocol (typically IP)...”; see also references to the IP protocol throughout the reference)

Regarding claim 6, “AAPA” and “DAN” disclosed a signaling method for use in a telecommunications network according to claim 1.

“AAPA” did not expressly disclose sending an appropriate active code from the signaling control unit to the active node, however, the Applicant did admit that the prior art disclose wherein active nodes receive active code in response to setting up a virtual circuit between a client and a server (see at least page 2, lines 23-37 and page 3, lines 1-3)

“DAN” disclosed a unit that sends an appropriate active code to an active node upon a request to set up a virtual circuit between a server and a client analogous to the situation described in the Applicant’s admitted prior art (see at least page 611, left column).

Claim 6 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 6.

Regarding claim 7, “AAPA” and “DAN” disclosed a method according to claim 6.

“AAPA” did not expressly disclose a step prior to the sending step of deciding on a strategy for sending of the appropriate active code by the signaling control unit, however, “DAN” disclosed that the active code is selected based on the function required before being sent to the active node (see at least page 611, left column).

Claim 7 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 1.

Regarding claim 8, “AAPA” and “DAN” disclosed a method according to claim 6.

“AAPA” did not expressly disclose a step prior to the sending step and optionally prior to the strategy decision step of the signaling control unit determining the appropriate active code, however, “DAN” disclosed that the active code is selected based on the function required before being sent to the active node (see at least page 611, left column).

Claim 8 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 1.

Regarding claim 9, “AAPA” and “DAN” disclosed a method according to claim 8.

“AAPA” disclosed a step prior to the determination step of negotiation between the terminals and the signaling control unit of the characteristics of a communications session. (see at least page 1, lines 5-24, wherein the signaling control unit may be a SIP proxy, which is known to set up communication sessions including the characteristics for a communication session between a client and server; see also Applicant’s admitted prior art “Session Initiation Protocol”, the "standard" described in the specification being "RFC 2543", which has been cited in this Office Action).

Regarding claim 10, "AAPA" and "DAN" disclosed a method according to claim 6.

"AAPA" disclosed a step prior to the negotiation step of the signaling control unit receiving the virtual circuit request and setting up the virtual circuit. (see at least page 1, lines 5-24, wherein the signaling control unit may be a SIP proxy, which is known to set up virtual circuits for a communication session between a client and server; see also Applicant's admitted prior art "Session Initiation Protocol", the "standard" described in the specification being "RFC 2543", which has been cited in this Office Action).

Regarding claim 11, "AAPA" and "DAN" disclosed a method according to claim 8.

"AAPA" did not expressly disclose wherein, when the control unit (3) comprises the active code library and selection means, the determination step comprises the selection by the control unit of the appropriate active code in the library, however, "DAN" disclosed that the active code is selected based on the function required before being sent to the active node (see at least page 611, left column).

Claim 11 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 1.

Regarding claim 12, "AAPA" and "DAN" disclosed a method according to claim 8.

"AAPA" did not expressly disclose wherein, when the control unit (3) comprises active code generation means, the determination step comprises the generation of the appropriate active code on the fly by the control unit, however, "DAN" did disclose these limitations (see at least page 611, left column, specifically regarding the steps described in Figure 2)

Claim 12 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 1.

Regarding claim 13, “AAPA” and “DAN” disclosed a network according to claim 1.

“AAPA” and “DAN” did not expressly disclose wherein the means controlled by the virtual circuit set-up means for sending active code to the active node reduces mismatching between stream characteristics required by an application and an instantaneous state of the active telecommunication network.

However, claim scope is not limited by claim language that merely expresses its intended use or result by suggesting or making optional steps but does not require the steps to be performed or by claim language that does not limit a claim to a particular structure. See MPEP 2111.04 and *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include these limitations with the claimed invention because the limitations merely express the intended use of a step or means by suggesting or making optional steps but does not require the steps to be performed, or by claim language that does not limit a claim to a particular structure and that the positively recited steps as shown as disclosed in the cited references encompass the scope of the recited intended result or use of the positively recited subject matter.

Claim 15 is also rejected since this claim recites substantially the same limitations as recited in claim 13.

Regarding claim 14, “AAPA” and “DAN” disclose a network according to claim 1.

“AAPA” disclosed wherein the client terminal transmits a data stream to the server terminal. (see at least page 2, lines 1-7 and 11-15 and page 3, lines 1-3)

Claim 16 is also rejected since this claim recites substantially the same limitations as recited in claim 14.

### **(10) Response to Argument**

Throughout the arguments presented in the Appeal Brief, the Applicant argues that “AAPA” and “DAN” do not teach sending active code to an active node upon or in response to “setting up a virtual circuit between a client terminal and a server terminal. The Examiner respectfully traverses this argument since this limitation is not recited within the claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, the Examiner submits that this argument is moot and the rejection should be sustained at least based upon this issue.

The Applicant argues that the combined teachings of the Applicant’s admitted prior art (“AAPA”) in view of “DAN” do not teach or suggest the signaling control unit in its entirety as recited in claim 1. The Applicant contends that “The AAPA does not include any teaching or suggestion of a request to set up a virtual circuit. In fact, the AAPA is completely silent on the inclusion of or setting up any virtual circuit in general.” (Applicant’s underlined emphasis as provided in the Appeal Brief) (see page 10 of the Appeal Brief) and that **“the Examiner necessarily is relying on improper hindsight,**



Art Unit: 2443

**as the AAPA is completely silent on any setting up of a virtual circuit between terminals.**” (Applicant’s bold and underlined emphasis as provided in the Appeal Brief) (see page 11 of the Appeal Brief)

The Applicant further argues that “the AAPA’s disclosure of a signaling control unit which may include a SIP proxy would not teach or suggest that the SIP proxy may ever set up a virtual circuit. Furthermore, reference has been made by the Examiner on page 5 of the final Office Action dated October 20, 2008 to RFC 2543, however, RFC 2543 also makes no mention of the SIP proxy setting up a virtual circuit or even receiving a request to set up such a virtual circuit”. (Applicant’s underlined and italicized emphasis as provided in the Appeal Brief) (see page 12)

The Examiner respectfully traverses these arguments and submits that the rejections made under “AAPA” and “DAN” should be sustained for at least the following reasons.

First, the Examiner notes for the record that MPEP 2129 states that:

“A statement by an applicant in the specification or made during prosecution identifying the work of another as "prior art" is an admission which can be relied upon for both anticipation and obviousness determinations, regardless of whether the admitted prior art would otherwise qualify as prior art under the statutory categories of 35 U.S.C. 102.” and that “Where the specification identifies work done by another as "prior art," the subject matter so identified is treated as admitted prior art.”

The specification discloses:

“In the field of conventional telephony, signaling control units route service signals exchanged by the telephone terminals and the telephone exchanges through which a call passes. These signals may in particular include information on the coordinates of a telephone terminal that is the target of a call request, the status (busy/free) of a line, the duration of a call and the billed amount. Prior art signaling control units include SIP proxy and softswitch servers. Various prior art protocols, including the Session Initiation Protocol (SIP) and the H323 protocol, enable the signaling control units to communicate with a network using the Internet Protocol (IP), known as an IP network. The Session Initiation Protocol is covered by standards issued by the Internet Engineering Task Force (IETF) and dates from 1999. Like the H323 protocol, which is covered by standards issued by the International Telecommunication Union (ITU) and was introduced in 1996, it regulates exchanges between data transfer applications in real time over IP networks.” (see page 1, lines 5-24 of the specification) (Examiner’s underlined and bold emphasis added)

“Setting up the virtual circuit is managed by one or more signaling control units 3, 4. The number of signaling control units used to set up a call depends on the location of the terminals concerned in terms of their network. These units comprise means for receiving a virtual circuit request 5 from a client terminal 1 and means for setting up a virtual circuit between the client terminal 1 and a server terminal 2. Such means may use the H323 protocol or the Session Initialization Protocol known in the art and all the means for communicating with an IP network with which signaling control units are

Art Unit: 2443

conventionally provided.” (see page 5, lines 23-34 of the specification) (Examiner’s underlined and bold emphasis added)

In view of these disclosures in the specification, the Examiner submits that it is clear by the Applicant’s own admission that the Session Initiation Protocol is known in the art and that the Session Initiation Protocol is used by the means of the claimed invention for the claimed features of receiving a virtual circuit request from a client terminal and means for setting up a virtual circuit between the client terminal and a server terminal. Indeed, the Free On-Line Dictionary of Computing broadly defines a “virtual circuit” as “a connection-oriented network service which is implemented on top of a network which may be either connection-oriented or connectionless (packet switching).” The Examiner cites this definition as being factual evidence that characteristics of prior art products were known in accordance with MPEP 2124. Therefore, the Examiner submits that the limitation “virtual circuit” has been given its broadest reasonable interpretation consistent with the specification and the interpretation that one of ordinary skill in the art would reach as required by MPEP 2111. Given that the limitation has been properly interpreted in light of the specification, the Examiner submits that it follows that the Applicant’s own specification does in fact disclose “virtual circuit” in the sense that the Applicant intends.

Furthermore, since the Applicant clearly admits that “Prior art signaling control units include SIP proxy...” and “These units comprise means for receiving a virtual circuit request 5 from a client terminal 1 and means for setting up a virtual circuit between the client terminal 1 and a server terminal 2. Such means may use the H323

Art Unit: 2443

protocol or the Session Initialization Protocol known in the art", the Examiner submits that the Applicant readily admitted that the Session Initiation Protocol is a known virtual circuit protocol and was known to be used by a signaling control unit such as a SIP proxy to receive a virtual circuit request from a client terminal and set up a virtual circuit between the client terminal and a server terminal.

The Applicant also readily admits that "The Session Initiation Protocol is covered by standards issued by the Internet Engineering Task Force (IETF) and dates from 1999". The Examiner cited this standard known as "RFC 2543" in the non-final Office Action mailed 20 June 2008.

"RFC 2543" disclosed:

"The Session Initiation Protocol (SIP) is an application-layer control protocol that can establish, modify and terminate multimedia sessions or calls. These multimedia sessions include multimedia conferences, distance learning, Internet telephony and similar applications." (see page 7 of "RFC 2543")

"Proxy, proxy server: An intermediary program that acts as both a server and a client for the purpose of making requests on behalf of other clients. Requests are serviced internally or by passing them on, possibly after translation, to other servers. A proxy interprets, and, if necessary, rewrites a request message before forwarding it." (see page 10 of "RFC 2543")

"When a client wishes to send a request, the client...sends it to a locally configured SIP proxy server (as in HTTP)..." (see page 13 of "RFC 2543")

“A successful SIP invitation consists of two requests, INVITE followed by ACK. The INVITE (Section 4.2.1) request asks the callee to join a particular conference or establish a two-party conversation. After the callee has agreed to participate in the call, the caller confirms that it has received that response by sending an ACK (Section 4.2.2) request...The protocol exchanges for the INVITE method are shown in Fig. 1 for a proxy server...In Fig. 1, the proxy server accepts the INVITE request (step 1), contacts the location service with all or parts of the address (step 2) and obtains a more precise location (step 3). The proxy server then issues a SIP INVITE request to the address(es) returned by the location service (step 4). The user agent server alerts the user (step 5) and returns a success indication to the proxy server (step 6). The proxy server then returns the success result to the original caller (step 7). The receipt of this message is confirmed by the caller using an ACK request, which is forwarded to the callee (steps 8 and 9)...” (see pages 15-16 of “RFC 2543”) (see also Figure 1 on page 16 of “RFC 2543”)

From these disclosures within "RFC 2543", which the Applicant has readily admitted as prior art, it is clear that a signaling control unit such as a SIP proxy as admitted by the Applicant has means for both receiving a virtual circuit request from a client terminal and setting up a virtual circuit between the client terminal and a server terminal.

Therefore, the Examiner submits that “AAPA” does in fact disclose the claimed limitations of a signaling control unit comprising means for receiving a request to set up a virtual circuit between a client terminal and a server terminal and virtual circuit set-up

means as has been shown in the previous Office Actions and that the rejections at least based on this issue alone should be sustained.

The Applicant also argues that the combined teachings of "AAPA" and "DAN" do not teach or suggest the claimed invention since "AAPA" and "DAN" separately fail to teach or suggest "a signaling control unit comprising: means for receiving a request to set up a virtual circuit between a client terminal and a server terminal; a virtual circuit set-up means; and means controlled by the virtual circuit set-up means for sending active code to the active node" as recited in claim 1.

The Examiner respectfully traverses this argument and submits that this argument is moot since this allegation does not accurately reflect the rejection that was made in the Office Action, which was that "AAPA" disclosed means for receiving a request to set up a virtual circuit between a client terminal and a server terminal and a virtual circuit set-up means, which has been shown above by the Examiner, and the combined teachings of "AAPA" and "DAN" teach means controlled by the virtual circuit set-up means for sending active code to the active node.

The Applicant readily admitted within the specification that "The concept of the networks known in the art as "active networks" was introduced by the Defense Advanced Research Projects Agency (DARPA) in 1994 and was the subject matter of a first international conference held in 1999: "International Workshop on Active Networks (IWAN 99)". The above-cited prior art defines an active network as a network in which certain components (in particular the nodes of the network) are programmable dynamically by connected entities such as operators, service providers, users, or

Art Unit: 2443

applications. The dynamic programming may relate to signaling, supervision, or data to be transmitted.” (see page 1, lines 25-37 of “DAN”) and that “Certain programmable or active nodes of an active network handle a portion of the applications (for example multimedia applications) and are able to change their behavior dynamically in order to perform processing that is specific to client-server applications. In addition to active components, active networks retain conventional network components such as the servers that are mandatory for effecting a connection between two sub-networks of a network. This is known in the art. Such components may comprise at the very least a computer connected to the network. An active code is a code (or program) that can be executed by a computer. The active code is usually contained in or referred to in a data stream received by the active nodes (or routers) and is executed at the nodes in a given execution environment. This kind of architecture in particular enables the functions of the network to be modified on demand, for example according to the nature of the data to be transmitted.” (see page 1, lines 11-29 of “DAN”)

“RFC 2543” also disclosed:

“The Session Initiation Protocol (SIP) is an application-layer control protocol that can establish, modify and terminate multimedia sessions or calls. These multimedia sessions include multimedia conferences, distance learning, Internet telephony and similar applications.” (see page 7 of “RFC 2543”)

“DAN” disclosed:

“The ANN does not have the code referenced in it's local cache and therefore contacts a code server for the module; (4) the ANN receives the active module, dynamically links it in its networking subsystem...” (see page 611, left column of “DAN”)

MPEP 2143 states that the Supreme Court in *KSR International Co. v. Teleflex Inc.* identified a number of rationales to support a conclusion of obviousness which are consistent with the proper "functional approach" to the determination of obviousness as laid down in *Graham*. The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious.

One exemplary rationale that may support a conclusion of obviousness includes combining prior art elements according to known methods to yield predictable results. To reject a claim based on this rationale, Office personnel must resolve the *Graham* factual inquiries.

The factual inquiries enunciated by the Court are as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Office personnel must then articulate the following:

(1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed



invention and the prior art being the lack of actual combination of the elements in a single prior art reference;

(2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely performs the same function as it does separately;

(3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and

(4) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

Based on the disclosures of "AAPA" and "DAN", it was clear to the Examiner that the systems of "AAPA" and "DAN" were substantially similar and that the difference between the references was the fact that "AAPA" did not expressly disclose sending active code from one node within a network to an active node, which was expressly disclosed in "DAN" ("Now, we simply add a new alternative for the node's behavior. If the node is unable to locate the function identified by  $f_n$ , it temporarily suspends processing of the packet and calls a "code server" for the implementation of the function  $f_x$ . In contrast to data servers which provide a client with "passive" data, a code server is a well known node in the network which provides a library of (possibly) unrelated functions for (possibly) different types of operating systems from various developers...The ANN does not have the code referenced in it's local cache and therefore contacts a code server for the module; (4) the ANN receives the active

Art Unit: 2443

module, dynamically links it in its networking subsystem...) (see page 611, left column of "DAN"). The Examiner found that it would have been within the level of one of ordinary skill in the art to simply combine such a means described in "DAN" into the signaling control unit of "AAPA" since one of ordinary skill in the art could have combined the elements as claimed by known methods such as simply adding the means to supplement the software or hardware functionality of the signaling control unit and, that in combination, the elements of the signaling control unit would have performed the same function as would have been done separately, i.e. the means for setting up a virtual circuit and receiving a request to set up a virtual circuit would operate independently from the means of sending active code to an active node.

The Examiner also found that the results of the combined means of the signaling control unit would have been predictable since combining multiple software or hardware functions so as to enable a signaling control unit able to handle multiple tasks was known in the art and would operate in a predictable manner.

Since the disclosures of both "AAPA" and "DAN" relate to active networks and its various uses and the specific advantages of using active networks that were disclosed in "AAPA", the Examiner found that there was sufficient motivation to combine the teachings of the references and that the references were analogous to one another based on their related field of endeavor and that, based on their related disclosures, there would be a reasonable expectation of success based on their combined teachings.

Therefore, the Examiner submits that the claims have been properly rejected under 35 USC 103(a), that a prima facie case of obviousness has been established and that the rejections based on the combined disclosures of these references should be sustained.

The Applicant relies on the same arguments regarding claim 6. The Examiner similarly relies on the above reasoning for claim 6 and submits that the rejections should be sustained for at least the same reasoning as shown above.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

This examiner's answer contains a new ground of rejection set forth in section **(9)** above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

**(1) Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

**A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below.**

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/George C Neurauter, Jr./

Primary Examiner, Art Unit 2443

Conferees:

/J Bret Dennison/

Primary Examiner, Art Unit 2443

Application/Control Number: 10/541,694  
Art Unit: 2443

Page 28

/Tonia LM Dollinger/

Supervisory Patent Examiner, Art Unit 2443

/Jack Harvey/

Director, Technology Center 2400